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ABSTRACT

The Continuing Education Institute's Workplace ESL (English-as-a-Second Language) and ABE (Adult Basic Education) programs improved the job experience for employees with language and literacy problems in Boston (Massachusetts) by teaching them language strategies that had direct application to their jobs. Health care administrators, supervisors, and employee participants provided the workplace details that became the core of a specialized curriculum. Participants read, talked, and wrote about their jobs. Classes met for 2 hours twice each week. In all there were 51 classes in 5 locations serving 141 employees from 6 health care organizations. The quality of care of the residents or patients entrusted to program participants was noticeably improved as a result of the project. Employees can now fill out patient forms correctly, inform residents and patients of what they are going to do to them as part of their care, and report problems. They have shown more initiative, have become more observant, and want to know more about illnesses and medicines. They also have become more positive and more self-confident. An outside evaluation by Marcus Lieberman, Ph.D., verified these positive outcomes. Five attachments containing statistical and other supplementary materials are provided, as is the text of the outside evaluation report. (KC)

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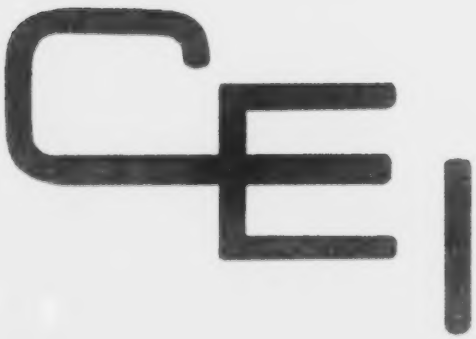
NATIONAL WORKPLACE LITERACY PROGRAM

For

HEALTH CARE EMPLOYEES



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FINAL EVALUATION REPORT

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NEEDHAM, MASSACHUSETTS

JUNE, 1993

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THE NATIONAL WORKPLACE LITERACY PROGRAM
FOR
HEALTH CARE EMPLOYEES

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THE NATIONAL WORKPLACE LITERACY PROGRAM
FOR
HEALTH CARE EMPLOYEES

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ADULT DIPLOMA PROGRAM

INSTRUCTORS	Boston City Hospital	Mattapan Hospital
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Kathy Rohmer Smith	Writing	Writing
Diane Slowe	Math	Math
Carl Johnson	Science	
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INTRODUCTION

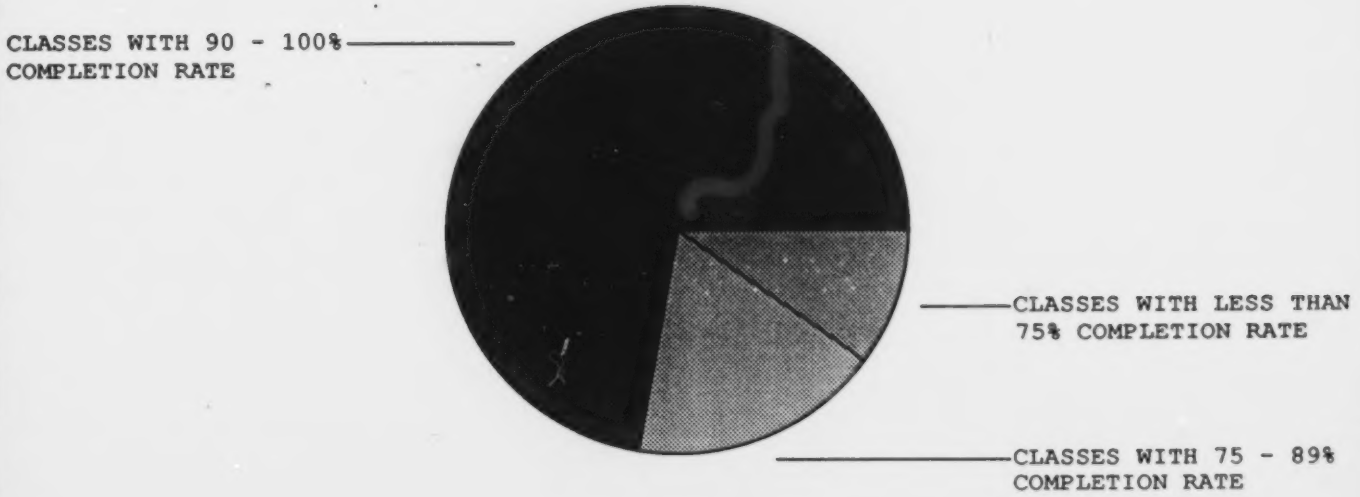
In 1991, the Continuing Education Institute (CEI), a non-profit educational firm located in Massachusetts, established an eight-member training partnership to increase the literacy and English language skills of health care workers employed by three hospitals and four nursing homes in Massachusetts. The partners were CEI, the City of Boston's Department of Health and Hospitals (Boston City Hospital, Mattapan Hospital, and Long Island Hospital); Sherrill House (a nursing home in Jamaica Plain), Goddard House (a retirement and nursing home in Jamaica Plain), Armenian Nursing Home (Jamaica Plain), and The Greenery Rehabilitation & Skilled Nursing Center (Brighton); CEI was the learning provider. Soon after the program started Long Island Hospital was closed by the City of Boston, so that all the hospital employees were transferred to the other two hospitals.

CEI, in ongoing planning and evaluation with its partners, established three educational programs--Adult Basic Education (ABE), English as a Second Language (ESL), Adult High School Diploma Program (ADP), for a total of 141 employees from the six health care organizations. Fifty one classes were offered: 11 ABE classes, 26 ESL classes, 14 ADP classes, serving 34, 67, and 40 individuals respectively. The number of training classes held at a given facility depended on the numbers of participants at that site.

The education training programs were funded by the U.S. Department of Education and were implemented over a 16-month period with a 2-month initial planning period. Each of the health care organizations also contributed in-kind services as well as paid release time for their employees. The partners held several meetings to plan the proposal, and collaborated throughout the program on a regular basis.

National Workplace Literacy Program

ESL/ABE Class Completion Rates



Number of classes per site

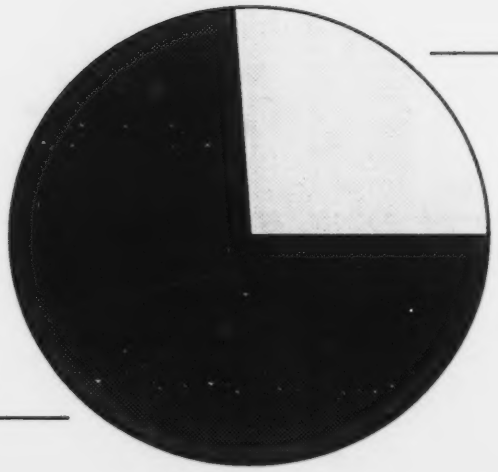
Armenian Nursing Home	4 Classes
Boston City Hospital	13 Classes
Greenery Rehabilitation Center	8 Classes
Goddard House	4 Classes
Sherrill House	4 Classes

20 Classes had completion rates of 100%

EMPLOYERS

N = 151

PROGRAMS



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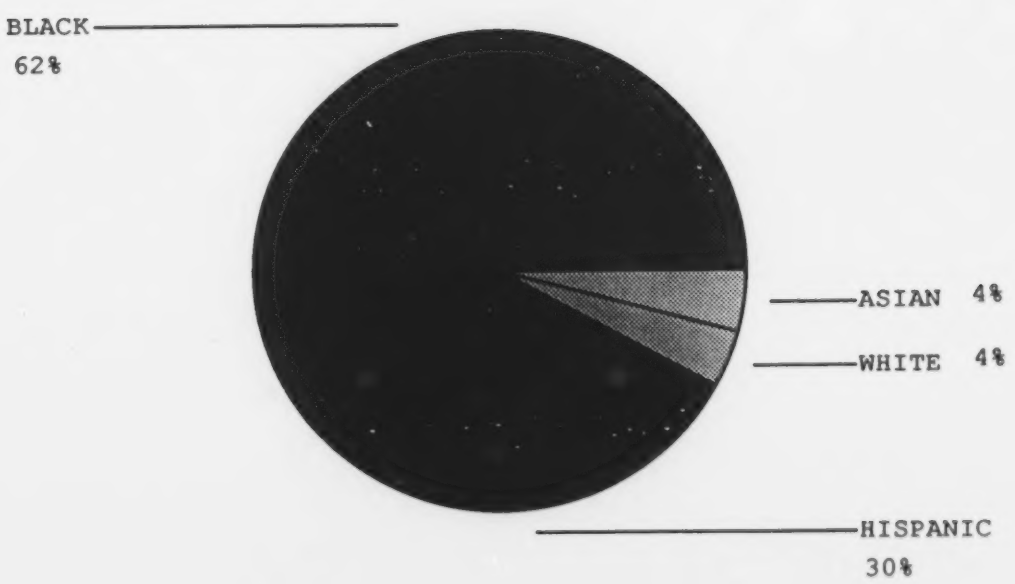
RACE



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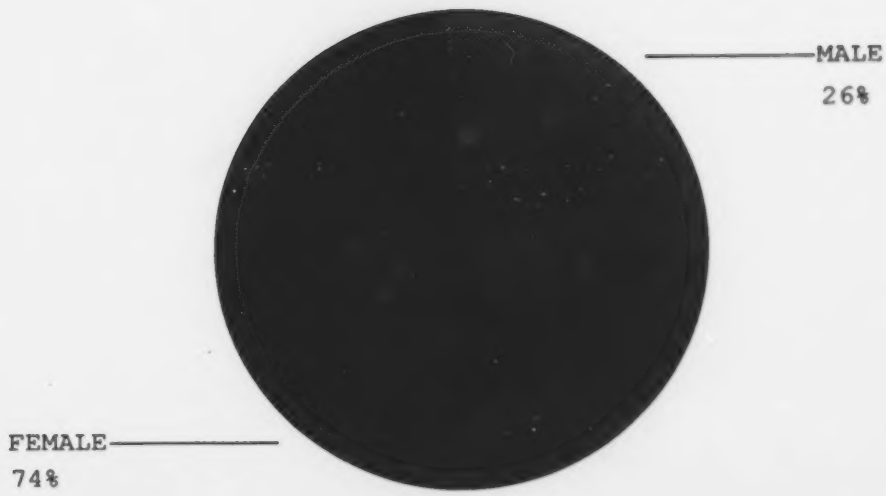
GENDER



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ANALYSIS OF NEEDS

The CEI Workplace Literacy Health Care Partnership was established because of the need for literacy training among health care workers. These needs were determined by an analysis of each of the health care partners. They in large measure confirmed national trends and changes as well as the changes in the population of the state and the composition of the workforce of these health care organizations. The needs of the partner-organizations are described in more detail below.

Health Care Partner-Organizations Workplace Literacy Needs

The shortage of direct and allied health care personnel in 1990 reflected the importance of literacy in recruiting, retaining, training and cross-training workers. Without rudimentary competence in reading comprehension, writing, math, and English language, a worker could not meet the requirements of the facility for advancement or cross-training. For example, the City of Boston, Department of Health and Hospitals found that 30% of the employees who applied for a Phlebotomy Certificate Program could not be admitted because their reading skills were below the 6th-grade level.

A further demonstration of the need for literacy training in the Workplace Literacy Partnership was a Boston City Hospital Workforce Survey in May, 1988, which showed that among BCH's lowest skilled workers, one out of three did not have a high school diploma; over one-quarter had difficulty in either reading, writing, or speaking English; and approximately 15% of the BCH workforce were not native English-speakers with 25% of low-skilled workers being non-native speakers. These workers were primarily engaged in clerical, dietary, and housekeeping occupations.

Persons from the dietary, housekeeping, laundry, and maintenance departments who wished to move up the health care career ladder were unable to do so without additional language and literacy training. Improving health care workers' basic literacy skills not only would increase their competence but their increased self-esteem would in turn serve to improve the quality of care in their workplace.

A 1990 CEI Facility Survey, prepared to identify the literacy training needs of the members of the Workplace Literacy Partnership, indicated the following information:

- Sherrill House -- more than a third of their employees did not speak English, and close to one quarter had not completed secondary education.

- Goddard House -- close to 40% of the employees in this facility were non-native English speakers.

- Armenian Nursing Home -- close to 40% of the employees had not completed high school

- Greenery Rehabilitation & Nursing Center -- of the 152 nursing assistants, approximately half were from Haiti and had limited proficiency in English

- City of Boston Department of Health and Hospitals (DH&H), in particular, planned to replace Boston City Hospital's current in-patient facility with a smaller, more efficient physical plant. Upgrading this facility necessitated a significant reduction in the workforce, especially in the low-skilled jobs in departments such as dietary, housekeeping, patient transportation and maintenance. This pool of at-risk workers represented a job-ready, seasoned group of individuals who could be retrained for new positions in high demand elsewhere in the health care field.

  In order to maximize career mobility for its employees, DH&H developed a multi-level, multi-faceted training strategy which included a hospital-based Career Ladder Program to provide a system of incentives for both employees and managers to progress within the employment structure, and an expanded Basic Skills Program, of which this Workplace Literacy Partnership was an example.

The lack of a skilled and stable health care staff raised serious concerns about the quality of care that could be delivered to the community. Health care facilities are labor intensive. Mistakes caused by a worker's inability to follow instructions, read labels, and record data correctly can have life-threatening

repercussions. For a health care staff, worker shortages meant longer hours or double shifts, which contribute to lateness, an increase in sick days, burnout, and a higher risk of costly mistakes.

PROJECT DESIGN

As primary learning provider, CEI was the lead member and representative of the partnership. CEI assumed fiscal and operational responsibility and provided all education, counseling, and related services. CEI delivered these services at each of the participating nursing homes and at the two hospitals of the Department of Health and Hospitals.

Representatives from each partner organization met frequently as a group and had numerous individual consultations with CEI staff to plan the shape and structure of the Workplace Literacy Program. Throughout the project, all members of the partnership continued to be actively involved in planning, scheduling, and evaluating the three education programs. The direct and ongoing involvement and support of each participant's supervisor was equally crucial in meeting the goals and objectives of the project.

The health care organizations provided paid-release time for the 111 employees enrolled in the ABE and ESL classes, and also sponsored the 40 ADP employees. All facilities contributed classroom space. The Department of Health & Hospitals provided classroom space for participants in the Adult Diploma Program. One member of each partner organization was designated to serve as the education coordinator for the respective facility in liaison with CEI managers and instructional personnel.

Curriculum Development

CEI worksite education training programs are characterized by a strong link between course content and the employee/participant's job function. To forge this Workplace Literacy Partnership link, CEI staff and the liaison person of the partner-organizations met initially with the supervisors of the employee/participants to determine individual workplace-specific goals and objectives which formed the foundation of the curriculum. Ongoing, regular

communication between CEI staff and health care supervisors was scheduled throughout the project to ensure that the literacy skills being taught related to those required of the training participants on the job. Thus, the curriculum was developed by all the partners: CEI staff, the health care administrators, individual supervisors, and the employee/participants themselves.

Once classes were in progress, the participants determined their own educational training goals and contributed job-related information and materials as well. These education plans were realized through group, pair, and peer instruction models. In addition to particular ABE and ESL textbooks which emphasized health care and general work-related content, CEI staff and teachers produced reading and grammar-practice materials and problem-solving discussion topics based on nursing home and hospital subjects. The continuous collaboration between the partners and participants assured almost immediate and relevant response in the classroom to changes in the workplace.

In a health care facility it is crucial that all employees be functionally literate. Health care facilities deal on a daily basis with life and death issues. A mistake by a dietary worker can have fatal consequences. If a maintenance worker cannot read the instruction labels on cleaning products, the results can be harmful to the individual worker and costly to the facility. Those workers who provide direct care to the patients must, at all times, be able to think critically and to solve problems relating to the patient's interests. To address the literacy requirements of the health care worker, the Literacy Partnership included the following subject matter in its curricula:

- identification and meaning of signs, labels, and product instructions in the work environment;

- potential safety hazards in the workplace with particular emphasis on the standards and procedures set by the Occupational Safety & Health Administration (OSHA) in the areas of infection control, radiation, chemicals, and physical dangers;

- fire prevention/evacuation procedures in each facility;

- forms, schedules, record-keeping used routinely in the workplace;

- culture of the health care organization including policies and procedures, appropriate dress, hygiene, and getting along successfully with co-workers/supervisors/patients;

- communication on the job: speaking, listening, asking questions for clarification, reading comprehension, writing, following written and oral instructions;

- test-taking skills, nursing home-specific terminology, and clinical skill-demonstration procedures for certification of nursing assistants;

- other subjects as determined by the needs of the participants and/or individual health care facilities.

The Workplace Literacy Partnership Program also directly addressed the literacy requirements implicit in the national Nursing Home Reform Act of 1987 requiring all nursing assistants to successfully complete a written test and demonstrate correct skills procedures for certification. The first round of testing was to have been completed by October, 1990. However, because of problems at the state level this did not occur. Yet, newly hired nursing assistants were still required to successfully complete the training and competency evaluation program (based on standards established by the U.S. Department of Health and Human Services) within four months of the date of hire. The quality of care in nursing homes is directly linked to nursing assistants gaining the skills they need to complete the training and to pass the test.

In order to meet the curricula needs determined by each facility, three education programs described below were offered in this project:

Adult Basic Education (ABE)

The Adult Basic Education program focused on upgrading the reading, writing, and mathematical skills of the participants. The ABE program consisted of 46 weeks of instruction: one 10-week and three 12-week modules, with the three basic skills integrated throughout. Participants received a total of 184 hours of instruction.

This competency-based curriculum was designed for hospital employees with relatively low skill levels (below 4th grade) in writing, math and reading. Reading, writing and math were taught throughout each of the four modules. For reading, several basic texts that best met the trainees' entry level abilities were chosen. For particular students, specialized texts on spelling, phonics, and decoding were used. Throughout the entire program, health care-related topics were adapted from actual training materials used in nursing education programs.

Writing skills were developed through classroom application of specific job-related writing tasks, supplemented by in-depth, skill-oriented writing assignments. These were based on the needs of individual participants.

The mathematics component of the ABE program primarily utilized site- and job-specific mathematical tasks. Examples included reading patient charts with ease and noting percentages of liquids consumed, reading thermometers and converting measures from one form to another.

English as a Second Language (ESL)

The English as a Second Language program focused on increasing the English language and literacy skills of the participants. The implementation schedule for the ESL classes was similar to that of the ABE modules consisting of one 10-week and three 12-week modules thereby providing a total of 184 hours of class instruction. Classes were held two days a week for two hour periods, with each module totaling 40 or 48 hours of instruction. Counseling and tutoring-- integral parts of the program--were offered in addition to these class hours.

The goals of CEI's ESL instruction were to enable the employees to communicate effectively and confidently in English on the job and to acquire the lifeskills they needed to adapt successfully to living in the United States. ESL course content was developed from an on-going collaboration between supervisors, participants and CEI staff; supervisors and participants were continually asked to describe job tasks and to explain the purpose for those particular tasks.

As the language ability of the participants increased, more new language needs came to the fore to be addressed. In most health care facilities, ESL participants prepared and conducted tours of their work areas for their classmates and instructors. Participants also read numerous articles about relevant health care issues to increase their job vocabulary, reading comprehension and critical thinking skills.

On-the-job safety was an important aspect of instruction for non-English speaking employee/participants. Each participant identified and learned warning signs and notices in their work area; each reviewed their facilities' fire procedures frequently through problem-solving exercises. Housekeeping participants continually reviewed cleaning product labels and directions for use. Nursing assistants practiced reading chart notations and writing observations of their residents.

Adult Diploma Program (ADP)

The Adult Diploma Program model takes a unique approach to adult education by combining standard academic course work with a guided self-identification and evaluation of previous learning achievements: the result is a standard high school diploma. Participants develop confidence as well as earn credits for their life/work experiences.

Of the 40 employees who enrolled in the program, 37 ADP participants completed five (5) competency-based courses of the standard secondary school curriculum: math, reading comprehension, English composition, science, and U.S. History, after which they took a high school-level exam in each subject. In addition, each participant earned credits for demonstration of learning gained through life experience - for skills and knowledge learned on the job. Participants enrolled in an employment workshop which analyzes such things as problem solving skills, interpersonal relations skills, information gathering and reporting skills, communication skills, technical skills, etc. in the context of his/her work experience. The analysis of these transferable skills provided the person with a better understanding of his/her true knowledge and abilities.

Typically each person met individually with the Diploma Consultant for counseling and individualized instruction of between 30 and 50 hours over the course of the program for a total of between 178 and 198 hours. Tutoring was also provided according to need.

Once having earned their high school diploma, health care employees are able to pursue training to become licensed practical nurses, registered nurses, emergency medical technicians, or other health care specialists. They are also likely to be more effective in their present jobs; supervisors of employees enrolled in the Adult Diploma Program have often noted improved job performance on the part of participants (while the program is in progress -- and more so upon its successful completion).

Individualized Educational Plans

In the CEI approach to adult education, individualized educational plans were established for each participant. Broad educational career goals and specific job performance objectives in the various skill areas were identified as a result of the assessment process and updated regularly throughout the course of the program.

During a three week period from mid-April, 1991, through early May, on-site orientation and screening were conducted by the Program Coordinators. Assessment and placement required 3-5 days at each worksite. All employees nominated by their supervisors for the ESL program were evaluated individually with a CEI Placement Instrument which consisted of an interview, compilation of a needs profile, and tests for reading comprehension and English composition.

Individuals who were not able to take this exam because their (English) literacy levels were too low were given a CEI Pre-literacy assessment, which consisted of letter, number and sentence recognition and comprehension which placed candidates in either ESL Literacy Level 1 or 2.

In individual interviews, the ABE and ADP candidates had the opportunity to discuss their school histories and their goals both academic and career. Applicants were given the CEI Informal

Reading Inventory, CEI Math Assessment Instrument, and CEI Writing Assessment Instrument. The tests were administered in small groups of 3-4 candidates to minimize interference with the employees' work schedules. In addition to interviewing each interested employee, CEI staff met with supervisory personnel to identify the kind and level of basic skills that were needed on the job.

Information derived from these activities was used to determine the individualized educational needs of the participants. ESL, ABE, and ADP classes were structured with a proportional mixture of full-class, small-group, pair, and individual activities in order to maximize focus on the individual participant's needs. Both heterogeneous and homogeneous small groups and pairs were utilized to provide concentration on specific skill needs, in addition to peer support/tutoring.

Fourteen participants in the ADP program required individualized assistance beyond that which was provided in class: tutors provided this vital function. Tutors were recruited through the Commonwealth Literacy Campaign (CLC) providing CEI with volunteers interested in adult literacy. Each tutor received initial training in helping the adult learner with the subject matter in which they would be tutoring. The Director of the Adult Diploma Program provided the on-going supervision of the tutors involved in the program. In general, tutors were full-time professionals from community businesses who volunteered their time after work because of their strong interest in helping other adults get ahead.

Counseling and Advisement

Over the length of an education training program, many challenges arise which are unique to the adult student. Balancing work, family, and school responsibilities can be very difficult. For some participants, the need to hold a second job limits their ability to function effectively in class. Moreover, many adults who undertake a training program do so with a history of negative experiences in school. For others, taking notes, completing homework assignments, preparing for tests, communicating concerns with instructors, and managing their time are challenging habits that must be acquired.

For these reasons, counseling was central to the students' successful participation in the Workplace Literacy Partnership. Course Coordinators had experience in educational counseling as well as in teaching and administering adult education programs. In the ABE and ESL programs, the instructors provided counseling as well; in the ADP program, the Site Coordinator/Diploma Consultant had this counseling role. All ADP participants met individually with their counselor to discuss their academic history, test results, and educational and career goals. In this manner, the participants began their training with an accurate understanding of the program's requirements and of their academic strengths and weaknesses. The counselor also described to each participant the range of support services that were available.

In general, counselors have a great impact on student retention. CEI workplace literacy and basic skills programs have a 70% completion rate overall. The close relationship between the participants and their counselors and the specific interventions which counselors often facilitate are an important factor in the number of adults that complete a given program. In this project the retention rate was even higher. In the Adult Diploma Program 92% of those employees who began the program graduated from high school a year later. In the ESL and ABE programs 20 of the 33 classes had 100% completion and only one class had less than 75% completion.

Staff Development

In CEI's experience providing workplace literacy programs, candidates for teaching positions have been, primarily, trained to offer literacy and language instruction in an academic context. To provide successful language and literacy programs in the workplace, however, teachers must be retrained to understand the uniqueness of workplace instruction, to develop a collaborative relationship with the employee/participants for the design and implementation of a curriculum within the workplace framework.

To address the need for teacher training in workplace education, CEI built a staff development component into the National Workplace Literacy Program. Subsequently, eight ESL/ABE teachers met on a weekly basis during the course of instruction. Initially the agenda for each week's meeting was determined by

the Program Director and included such topics as adult learning styles, adapting materials to the workplace, learner-directed curriculum development, attendance and evaluation. With increasing confidence and familiarity with their work sites, the teachers themselves generated the topics for the meeting. Teachers found sharing teaching techniques and investigating teaching methodologies and their individual adaptations especially beneficial.

PROGRAM EVALUATION

Expected and Unexpected Outcomes

Evaluation is the component in educational programs which links all the disparate parts together. According to the proposal, each participant would benefit from the program according to his/her individual needs. For ABE and ESL participants, the workplace-specific curriculum would have an expected positive impact on their job performance and productivity. Improved reading, writing, mathematical and English language proficiency would, supposedly, enable these participants to advance in their jobs, get other jobs, enter job-skills training and, for ESL participants, perform their jobs with greater confidence and fewer mistakes. The training participants in the Adult Diploma Program would secure the literacy and technical skills they would need to open up new career options and to provide access to further specialized training, an absolute prerequisite for advancement in a health care career. For all employees, participation in the education training program should help them to continue their employment, get more out of their jobs, and therefore, do a better job.

To determine the extent to which CEI and its partners met the goals of the project and the objectives of the partner organizations and their employee/participants, CEI relied on a variety of quantifiable and qualifiable procedures.

Attendance and Completion Rates

Of the 40 employees who enrolled, 37 participants in the Adult Diploma Program earned their high school diploma through the National Workplace Literacy Program for

Healthcare Employees. Twenty (20) out of 33 ESL/ABE classes had a completion rate of 90-100%; the remaining classes had completion rates of 75-89%.

The workplace literacy programs had a successful completion rate despite a downturn in the Massachusetts economy prior to the beginning of the project. One of the partners, the Department of Health & Hospital of the City of Boston, closed Long Island Hospital and, simultaneously, began laying off large numbers of employees. The workforce was in a constant state of flux for some time, due to the "bumping" process which allowed more senior employees to move anywhere within the Department of Health and Hospitals.

One of the nursing home partners had the budget cut of its medicaid patients which meant most employees were no longer able to depend on overtime hours; many employees, consequently, needed to drop out of the education training program in order to take on a second job. In addition, everyone was fearful of losing his/her job.

As was stated above the high completion rates for the participants in the workplace programs were inspite of a dramatic downturn in the economy in Massachusetts. But, given the depth and breadth of the recession, participation in the workplace education training program may well have been the determining factor for most employee/participants continuing their employment. In fact, only two out of 111 ESL/ABE employees were laid off during the project, and 1 of the 2 was later reinstated in his job through the bumping process. In a post-project survey of 24 of the 37 ADP graduates contacted, a third reported they had been laid-off but had found similar employment due directly to their having their high school diplomas.

Supervisor Evaluation

As CEI met with supervisors from each of the health care organizations to determine the language and literacy needs of their employee/participants, supervisors of ESL/ABE employees were asked at intervals during the project to assess the degree to which s/he thought those educational needs had been met. For example, supervisors were asked if

their employee/participants had demonstrated any improvement in the following communication skills:

- were employee/participants better able to ask appropriate questions, listen to and understand their supervisors and co-workers

- were employees better able to understand and use job-related vocabulary

- were employees more comfortable in the work culture and more confident in performance of their job

Supervisors of participants in the ADP program were asked to complete a questionnaire at the end of the program. The questionnaires essentially asked the supervisor to qualify their observations of employees' communication skills.

(See Attachments A and B for Supervisor ADP and ESL/ABE Evaluation Graphs)

In an effort to quantify, as well as qualify, supervisors' observations, CEI developed and piloted a Language Needs Assessment instrument for the supervisors of the ESL participants. This instrument was intended for the supervisors to identify and assign ratings to the literacy and language skills their healthcare employee/participants needed to do their jobs or to do their jobs better. Under ideal circumstances, supervisors would read brief instructions and check appropriate ratings best describing their employee's language and literacy performances prior to to the start of classes and again at the conclusion of a project, thus showing a degree of change in skills as applied to the job.

(See Attachment C Language Needs Assessment Form)

CEI found, however, that supervisors had their own interpretations of the purpose of the instrument creating new questions rather than shedding light on the intended purpose. Many supervisors, for instance, saw the assessment as an opportunity to demonstrate that their employees were good workers or not, as the case may be. Because of the

discrepancy in ratings, CEI concluded that the manner of conducting the assessment needed revision by either training supervisors to fill out the form or interviewing each supervisor. Because few supervisors at the various worksites were accessible for individual interviews and none had time for training, this type of evaluation form could not be used. However, as a means for obtaining quantifiable data about the transfer of language and literacy skills to the job, the instrument has potential if administered in a controlled manner.

An unexpected benefit of the project to the partner organizations were, in CEI's observation, a change in attitude of the supervisors themselves. Employees who had initially been described as problematic by their supervisors were, at the end, being described as individuals who were contributing members of a patient/resident's care team. Employees who had disappeared into an 'invisible' workforce were now distinctly visible in their supervisor's eyes, e.g., cultural differences previously a source of frustration and irritation were now being seen in a more positive light.

Individualized Education Plans

In an effort to formalize the IEP planning process and, more importantly, to forge a stronger qualifiable link between IEPs and evaluation, CEI designed another series of forms to address this aspect of the evaluation process. At the beginning of the second module of ESL/ABE classes, intermediate-level participants were asked to specify their education goals in various literacy and language categories, such as what types of things did they want to be able to read, say, write, etc.; a checklist version of this IEP was adapted for beginning-level participants, and included instructor assistance in filling it out. These questionnaires were designed for participants to evaluate themselves in achieving their goals, and for the instructor to evaluate the participants, similarly, in these efforts.

The IEP and associated evaluation forms proved difficult for participants to answer. Intermediate-level employee-participants, for instance, had problems determining what,

specifically, they wanted to be able to read, write, understand. At the end of 12 weeks, the relation between what they had identified as a goal, what they had learned in respect to that goal, and how they had evaluated that learning process was too amorphous. The beginning-level participants seemed too overwhelmed by the enormity of what they needed to know to be able to comment on how well they had learned a particular literacy task.

CEI's experience with formalizing participants identification of their own learning goals is that the content of the process is continually shifting, defying specification e.g., what was a goal today may have been met or is no longer relevant due to progress in unexpected other learning areas. Therefore, the instructor must be continually alert responding to what, specifically and generally, participants want and need to know. CEI has concluded that the collaboration between participants' language and literacy needs and an instructor's ability to recognize and address them remains at the center of IEPs. Finding some way to plot a participant's learning process linked to his/her goals remains a challenge.

(See Attachment D IEP and Evaluation Forms)

CEI continued to ask the participants in the program to evaluate their learning. Participants in the ADP program had frequent tests scores along with counseling to monitor their progress. ESL/ABE participants filled out an evaluation form which asked for the individual's assessment of their educational experiences in the class and as they related to the job.

Instructor Evaluation

Instructors in the National Workplace Literacy project also filled out reports and forms detailing the focus of the workplace education subject matter and each participant's mastery of it. These end-of--module reports enabled instructors to point out participant's strengths and to recommend particular learning strategies for individual improvement.

Academic Evaluation

High beginning/intermediate-level participants in the ESL/ABE programs were given a pre- and post-CEI Assessment Test in Reading and Grammar. Approximately 20% of the total program participants took both tests and showed a 2.15 grade-level increase in reading and a 170% improvement in grammar. Participants in the ADP were required to prove high school competency in basic skills by passing examinations and writing a report.

Qualitative Evaluation

Following the conclusion of all the classes the Director of the Program, Dr. Lloyd David, and the Outside Evaluator, Dr. Marcus Lieberman, met with supervisory staff in each of the sites. In all instances there was overall enthusiasm for the program and results were noted. Below are some examples of anecdotal qualitative information:

* Armenian Nursing Home: - Nursing Assistants enrolled in the Adult Diploma Program began to ask questions about certain treatments for some of the residents. They were very interested in learning the causes of the different ailments and the respective remedies. Many were hoping to attend nursing school in the future. One of the ESL students who completed the program later enrolled into the Adult Diploma Program offered through the Community Development Block Grant received by CEI from the City of Boston. In general there was a great deal of support for each of the students from the staff, many of whom had served as tutors throughout the year. For example, the Director of Environmental Services had tutored the nursing assistants in math during that class in the Adult Diploma Program.

* Goddard House: - The administrator of this nursing home was able to conduct a staff meeting for the first time solely in English without relying on an interpreter. The housekeeping staff began to pay attention to the announcements on the loud speaker, thereby eliminating the necessity of the supervisor running throughout the building seeking them. Three of the seven graduates from the Adult Diploma Program enrolled in college nursing programs. Employees are more assertive and contribute during meetings of residents' care by asking more questions. They really see

themselves as part of the team: an important development as nursing assistants are more directly involved in a resident's care than the nursing staff. Attendance at in-service meetings has improved. Finally,employee/participants ask more about employee benefits, and try to resolve issues rather than becoming disgruntled.

* Sherrill House: The participants in the ESL program have become more communicative with residents and co-workers. A quarter of the students have begun to supervise the training of new nursing assistants. They communicate more with residents and co-workers. They speak more English on the floor and ask more questions about the reasons for a particular treatment or medication. They also speak up at meetings and ask more questions. One participant did not speak 2 words of English before the classes began. By the end of the program her role had changed and people began to listen to her at staff meetings. She also became an effective advocate for the patient. The nurse manager now relies on these nursing assistants whereas she would never have asked for their opinions before. This has saved time for her and made her job easier.

* Greenery Rehabilitation and Skilled Nursing Center: One of the major problems solved by the ESL program here was the sorting of the patients' laundry. Prior to the class the person who sorted the laundry continuously did it wrong, which caused a lot of frustration, anger and duplicate work for the supervisor. During the class items of clothing and their color became part of the curriculum. The problem was solved thereby creating more efficient sorting and a better working atmosphere.

There was also increased initiative on the part of the nursing assistants as well. Now they go directly to the therapists for information concerning particular treatment for a patient. The students in the Adult Diploma Program are now reading behavior plans, are more relaxed and are seen as part of the unit. The patients have sought help from some of the ADP graduates and asked for them by name. In another instance a student at the beginning of the ADP was seen as a slow worker, defensive with other staff and with low self esteem. Now her defensive behavior has disappeared with improved self confidence, and she is a faster and more productive employee.

In the nursing home's housekeeping department, the employees were seen as unwilling to speak English at the beginning of the ESL classes. By the end they spoke with the patients; one person was even promoted to supervisor. During the in-house training programs on infection control, students in the ESL classes were asking questions and actively participating for the first time.

* City of Boston Department of Health and Hospitals:
At Boston City Hospital the students came from many different departments - nursing, accounting, medical records, food service, and housekeeping. As a result of the ESL classes one participant received a promotion from housekeeping into medical records . In the Medical Records Department accuracy is very important. All the employees from this program now use the computer to enter data. They have become more conscientious. Because of the closing of Long Island Hospital many people have been forced to switch jobs. Nevertheless attendance in all the classes was excellent with all but one person completing the Adult Diploma Program and eight out of 13 ESL/ABE classes having 100% completion.

A follow-up telephone survey of the Adult Diploma Program 10 months after graduation from Don Bosco Technical High School reached 73% of the graduates. The results of the survey found that of this group all were currently employed full time or were attending college full time. Seventy percent of the graduates surveyed had kept their jobs during a time of massive lay-offs and an economic downturn. At the same time all those who had been laid off had found new jobs of equal or higher rank, or had entered college full time. Fifty percent of these graduates stated that their new jobs were a direct result of their participation in the Adult Diploma Program. Eighty-one percent were enrolled in an educational program or were applying to enter one. The City of Boston awarded a Community Development Block Grant to continue the Adult Diploma Program for employees from these health care institutions.

DISSEMINATION ACTIVITIES

Publication

CEI has written a report of the National Workplace Literacy Health Care Partnership project to disseminate to its current mailing list of 1500 companies and individuals interested in adult literacy matters.

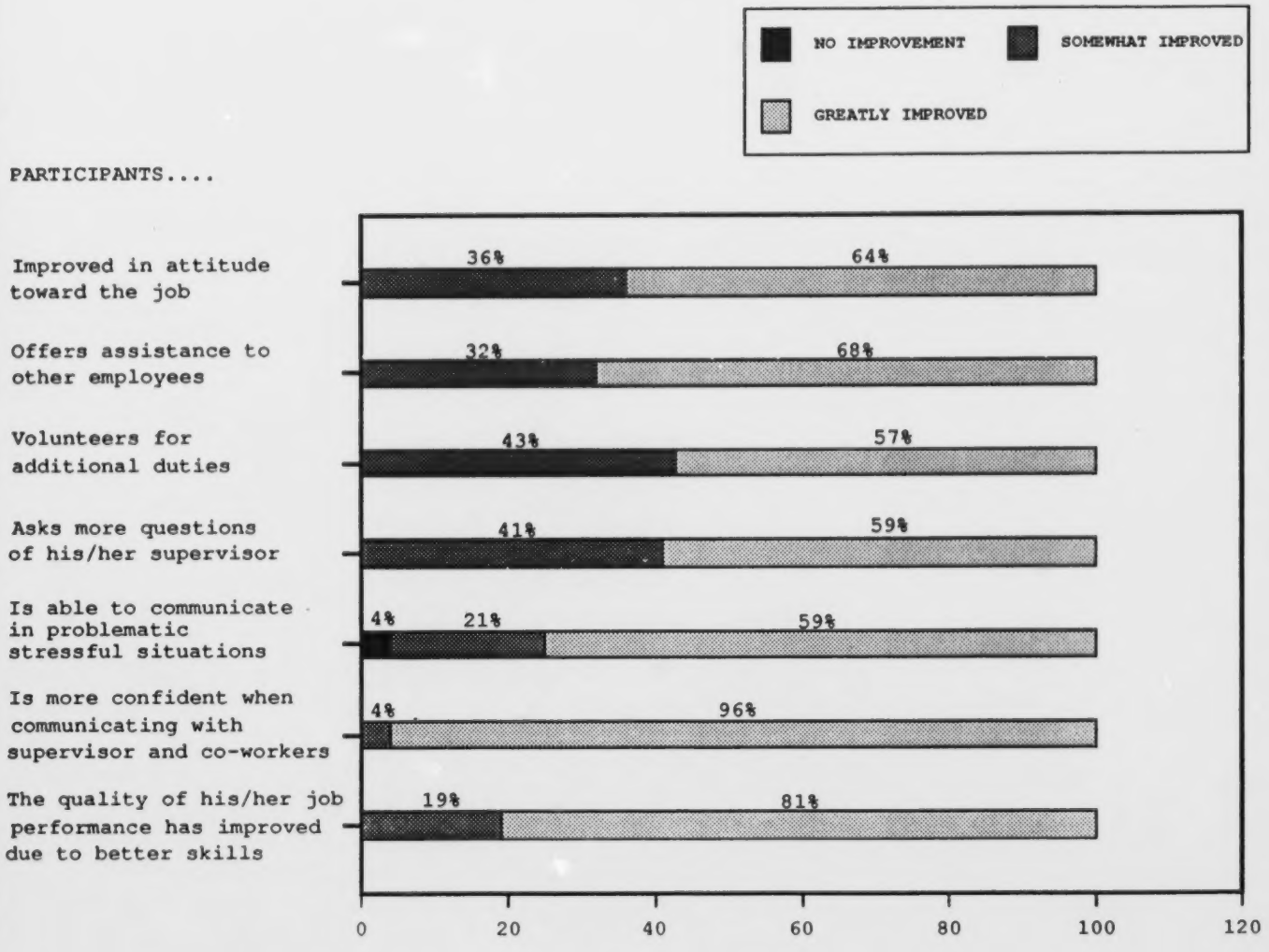
(See Attachment E CEI Workplace Newsletter)

KEY PERSONNEL

There were no changes in key CEI personnel during the National Workplace Literacy project.

ATTACHMENT A

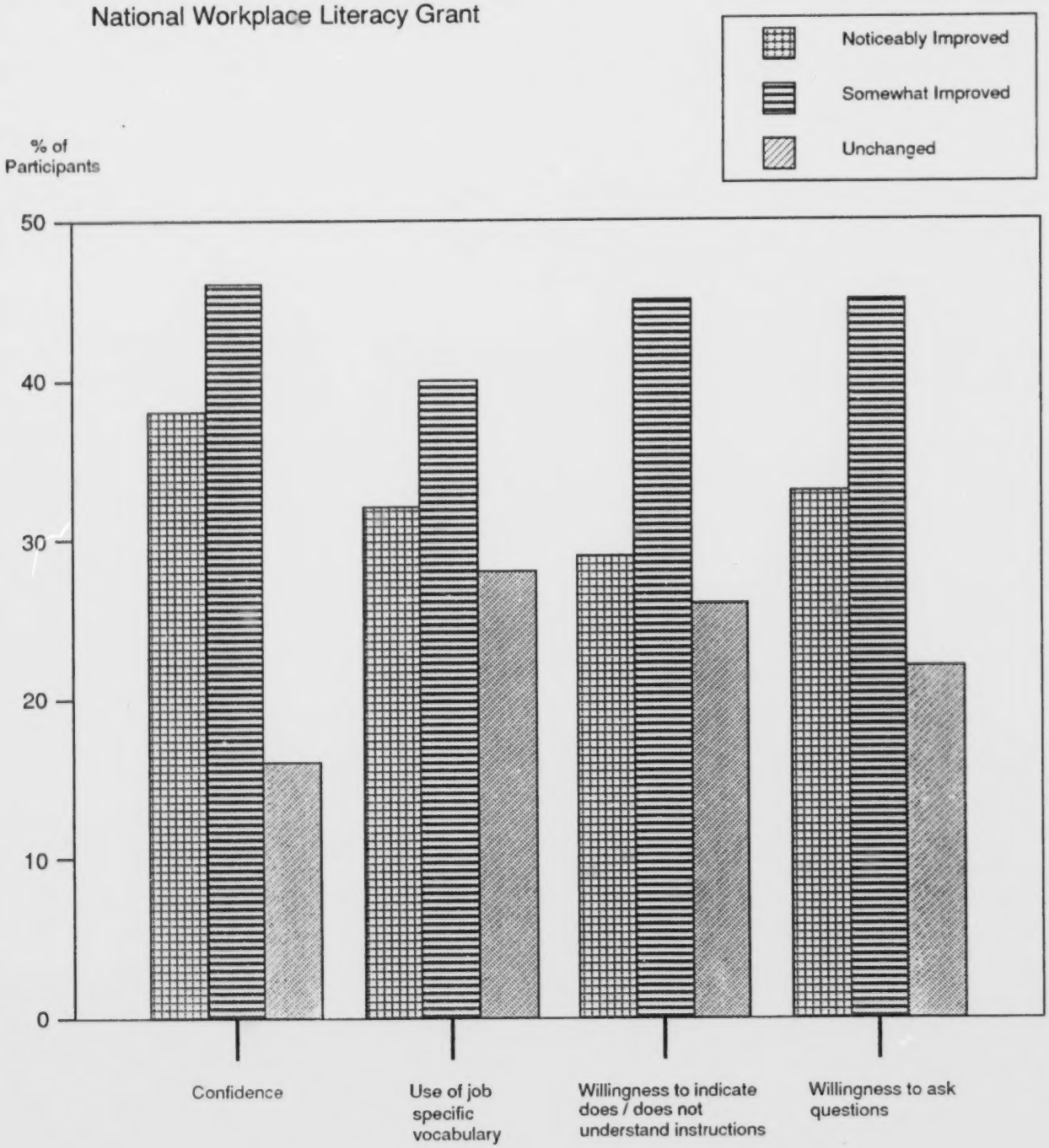
ADP / Federal Grant / Supervisor Evaluation



ATTACHMENT B

Supervisor Evaluations of ABE/ESL Partcipants

National Workplace Literacy Grant



ATTACHMENT C-a

CE|

CONTINUING EDUCATION INSTITUTE INC.

Site _____ Work Area_____

Department _____ Shift _____

CONTINUING EDUCATION INSTITUTE
LANGUAGE NEEDS ASSESSMENT

EMPLOYEE

Date and Name of Supervisor providing evaluation

ORAL SKILLS (in English)	0	1	2	3	4	5	Comments
Follows directions							
Gives feedback to directions							
Asks clarifying questions							
Responds to requests							
Indicates understanding							
Reports work activities							
Responds to facility codes							
Communicates with:							
supervisor							
co-workers							
patients							
inspectors							
staff							

LITERACY SKILLS (in English)							
Reads & follows work schedule							
Reads personnel policies							
Understands labels/directions							
Reads posted announcements							
Completes charts/lists							

PERSONAL SKILLS	rarely	often	always
Shows confidence performing job			
Comes prepared for work			
Shows positive attitude towards:			
job			
co-workers			
supervisors/managers			
Supervisor needs a translator ___			

Supervisor shows ___ or tells ___ or both ___ employee what to do.

(Please see other side for information)

CONTINUING EDUCATION INSTITUTE

LANGUAGE NEEDS ASSESSMENT

The Language Needs Assessment form is to be completed for each employee/participant at the beginning, middle and end of an ESL/ABE program. The purpose is to evaluate the acquisition of language skills and their transferance to the job.

Instructions for gathering information:

Ideally, an Evaluator meets with Supervisors and completes the form.

However, given time constraints, Supervisors may need to complete the form on their own, in which case, they print their names and the date at the top of the form in the space provided.

Work Area and Shift information is about the employee

Skills Transfer Rating

0 = Not Applicable
1 = Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Always

Personal Skills Rating

Rarely
Often
Always

Please list any skills which are 1) not on the form and should be; and 2) are included on the form and shouldn't be.

_____

_____

Comments from supervisors about the form, the employee, the program, etc.

_____

_____

_____

CONTINUING EDUCATION INSTITUTE INC.

ATTACHMENT D-a

WORKPLACE EDUCATION PROJECT

Participant Plan and Evaluation

Name _____ Company Name _____

Teacher's Name _____ Your Job _____

Date _____

_____ Your Education Goals _____

I want to be able to: (please check)

READ (in English) SIGNS ___

LETTERS ___

PAYCHECK ___

LABELS ___

DIRECTIONS ___

NOTICES ___

(Other items) ___

UNDERSTAND SUPERVISOR ___

PATIENTS ___

CO-WORKERS ___

OTHER LANGUAGE GOALS

___

___

___

Your CAREER GOAL is _____

CONTINUING EDUCATION INSTITUTE INC.

WORKPLACE EDUCATION PROJECT

Participant Evaluation

Name _____ Site _____ Date _____

1. Directions: Please review your Education Goals and, in the space provided, rate your progress.

READ (in English)	no	a little	some	a lot
SIGNS	___	___	___	___
LETTERS	___	___	___	___
PAYCHECK	___	___	___	___
LABELS	___	___	___	___
DIRECTIONS	___	___	___	___
NOTICES	___	___	___	___
	___	___	___	___
	___	___	___	___
UNDERSTAND				
SUPERVISOR	___	___	___	___
PATIENTS	___	___	___	___
CO-WORKERS	___	___	___	___
OTHER LANGUAGE GOALS	___	___	___	___
	___	___	___	___
	___	___	___	___

HOW does your TEACHER help you in class?

What do you like about your class?

CEI
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WORKPLACE EDUCATION PROJECT

Participant Plan and Evaluation

Name _____ Company Name _____

Teacher's Name _____ Your Job _____

Date _____

_____ Your Education Goals _____

I want to be able to:(give details)

READ _____

_____

_____

WRITE _____

_____

TALK ABOUT _____

_____

_____

UNDERSTAND _____

_____

MATH _____

_____

Please describe your CAREER GOAL _____

_____

WORKPLACE EDUCATION PROJECT

Participant Evaluation

Name _____ Site _____ Date _____

1. Directions: Please review your Education Goals and, in the space provided, rate your progress.

	no	a little	some	a lot
READ	___	___	___	___
	___	___	___	___
	___	___	___	___
WRITE	___	___	___	___
	___	___	___	___
TALK ABOUT	___	___	___	___
	___	___	___	___
	___	___	___	___
UNDERSTAND	___	___	___	___
	___	___	___	___
DO MATH	___	___	___	___
	___	___	___	___

2. Have you received a promotion y/n or a job change y/n during this Module?

3. Is what you are learning in class helping you in your job? y/n How?

4. Does your TEACHER help you achieve your goals? Yes__ No__ HOW?

WORKPLACE EDUCATION PROJECT

Participant Progress Report

Date _____

Participant _____ Program ____ Module _____

Instructor _____ Site _____

1. Please rate the progress you estimate the participant has made in the following areas and about specific activities:

	a little	some	a lot
Reading:			
_____	____	____	____
_____	____	____	____
_____	____	____	____
Writing:			
_____	____	____	____
_____	____	____	____
Talking:			
_____	____	____	____
_____	____	____	____
Indicating Understanding:			
_____	____	____	____
_____	____	____	____
Problem Solving:			
_____	____	____	____
_____	____	____	____
Participating:			
_____	____	____	____
_____	____	____	____

Comments: _____

_____

_____

Number of Absences: _____ out of _____ class sessions

VOL. 2, NO. 4

CEI Workplace *Education Report*

NATIONAL WORKPLACE LITERACY PROGRAM FOR HEALTH CARE EMPLOYEES

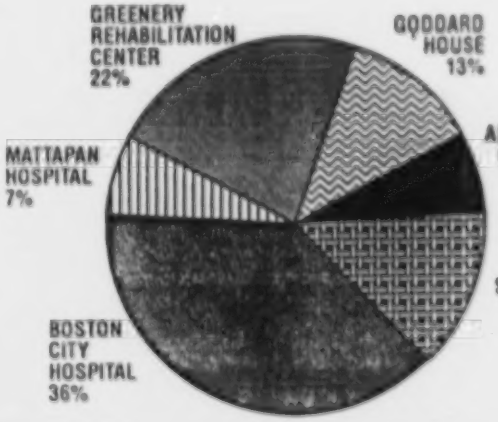
In 1991, the United States Department of Education awarded a National Workplace Literacy Program grant to the Continuing Education Institute and its partners, the City of Boston Department of Health & Hospitals (Boston City Hospital and Mattapan Hospital), four private nursing homes in Boston - Armenian Nursing Home, Goddard House, Sherrill House and the Greenery Rehabilitation and Skilled Nursing Care Center. This demonstration project focused on the needs unique to these health care institutions and their employees, with the ultimate goal being to enhance the quality of care and well-being of their residents and/or patients. Toward this purpose forty (40) employees enrolled into the Adult Diploma Program and attended classes at either Boston City Hospital or Mattapan Hospital. A year later 37 employees graduated with a high school diploma from Don Bosco Technical High School. Simultaneously 111 employees participated in Workplace English as a Second Language and Workplace Adult Basic Education programs conducted at each partner site. See Graph #1 Employers.

CONTINUING EDUCATION INSTITUTE AND HEALTH CARE PARTNERS

The Continuing Education Institute (CEI) is a non-profit organization which develops and produces innovative education and training programs for adults in the workplace who lack basic academic or English language skills. During its 16-year history more than 5000 adults have participated in programs provided by CEI. The nursing home partners serve diverse populations needing special care; Goddard House provides a residence community as well as nursing services for elderly women; Armenian Nursing Home provides nursing care for the elderly of Armenian descent, many of whom do not speak English; Sherrill House offers a haven for retired Episcopal clergy and nursing services to those elderly in need; and the Greenery Rehabilitation and Skilled Nursing Care Center specializes in caring mainly for young adults with head injuries. The City of Boston Department of Health & Hospitals provides a full range of health-related services to the residents of Boston. For example, Boston City Hospital provides hospital care for the poor of the city as well as surrounding communities. Mattapan Hospital is a long-term care facility.

The employees from the partner organizations who participated

GRAPH #1 EMPLOYERS



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in the program were employed as nursing assistants, housekeepers, medical records clerks, transporters, dietary workers and lead paint poisoning prevention inspectors and outreach workers. These employees participated in either the Adult Diploma Program (ADP) or the Workplace English as a Second Language and Workplace Adult Basic Education (WESL and WABE) programs. See Graph #2 Programs, Graph #3 Gender, Graph #4 Race.

CEI'S NATIONAL WORKPLACE LITERACY PROGRAMS

ADULT DIPLOMA PROGRAM

The worker without a high school diploma in the 1990s is missing the passport to better jobs and a more prosperous future. The Adult Diploma Program (ADP) developed by the Continuing Education Institute (CEI) is an innovative approach to addressing the crisis in adult literacy. It is designed with the interests of both the employee/participants and their employers in mind. However, as in traditional learning efforts, ADP participants must meet academic standards determined by CEI and Don Bosco Technical High School of Boston, the high school awarding the diploma. Participants took five academic courses and proved high school-level competence at the end of the course by either passing an examination or writing a report. The courses were: Reading Comprehension, English Composition, Math, U.S. History and Science. To assure the academic success of participants in the program, the program Director monitored each participant's progress and dealt with myriad issues before they became problems, including arranging tutors for those learners who needed extra help.

The ADP is unique since it requires the adult learner to demonstrate skills and knowledge learned from a job or other life experiences, and it awards high school credit for those experiences. Each learner must enroll in an employment workshop which analyzes such things as problem solving skills, interpersonal relations skills, communication skills, information gathering and reporting skills, technical skills, etc. in the context of the work experience. The analysis of these transferable skills provided a participant with a better understanding of his/her true knowledge and abilities. Upon successful completion of all courses and workshops, the participant earned 16 credits and a standard high school diploma.

A survey of supervisors of employee/participants in the Adult Diploma Program showed that 57% - 96% of the students greatly improved with respect to their work performance. See Graph #5.

WORKPLACE ENGLISH AS A SECOND LANGUAGE PROGRAM WORKPLACE ADULT BASIC EDUCATION PROGRAM

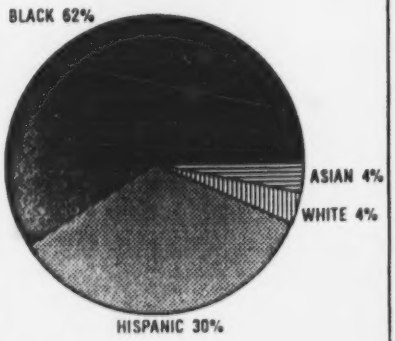
In today's health care setting, employees are being asked to function as a team member and to communicate accurately, courteously and confidently to patients, supervisors and inspectors; they are being required to observe and record information correctly. It is no longer enough for employees to perform like robots. Today's workers must be listening, thinking and speaking. Employees with increased language and literacy skills are more flexible and productive workers. The WESL and WABE process transforms previously limited workers into employees with confidence and potential.

Employees with limited English and/or limited literacy skills strive for invisibility and anonymity in their workplace. They devise all manner of strategies to compensate for their inadequate language and literacy ability. For example,

GRAPH #2 PROGRAMS

GRAPH #3 GENDER

GRAPH #4 RACE



Volume 2, Number 4, SUMMER 1993

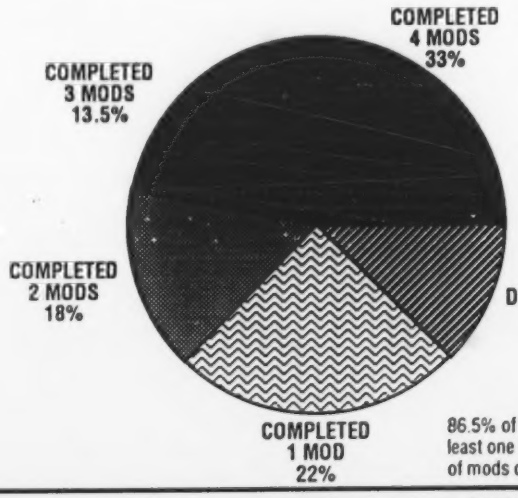
the illiterate housekeeper asked to read a cleaning product label will claim poor vision, broken glasses, an emergency elsewhere; a limited English speaking nursing assistant will assure her supervisor she understands her instructions while hoping a colleague will, in truth, know what to do and explain it to her.

Workplace ESL and ABE classes relied for instructional content on adapting the nitty-gritty of the tasks employee/participants performed; the classroom mode was learning to do. The CEI Workplace ESL and ABE programs improved the job experience for these language and literacy handicapped employees by teaching them language strategies that had direct application to their jobs. Health care administrators, supervisors and employee/participants provided the workplace details which became the core of a specialized curriculum. Making the learning experience workplace-specific was achieved through a collaboration between the teacher and the participants continually expanding upon the employee's tasks; the teacher provided the language and literacy having to do with, for example, the process of cleaning a patient's room, while the employees contributed their own experiences with that process. Participants read, talked and wrote about their jobs.

Classes met for two hours twice a week. In all there were 33 classes in five locations. Graph #6 shows the completion rate for the ESL/ABE classes. Twenty classes had completion rates of 100%. Supervisors evaluated each of the ABE/ESL participants to determine the impact of the classes on a person's willingness to use English in appropriate settings. More than 70% of the students either somewhat improved or noticeably improved in each area questioned. Graph #7 shows the results of this survey.

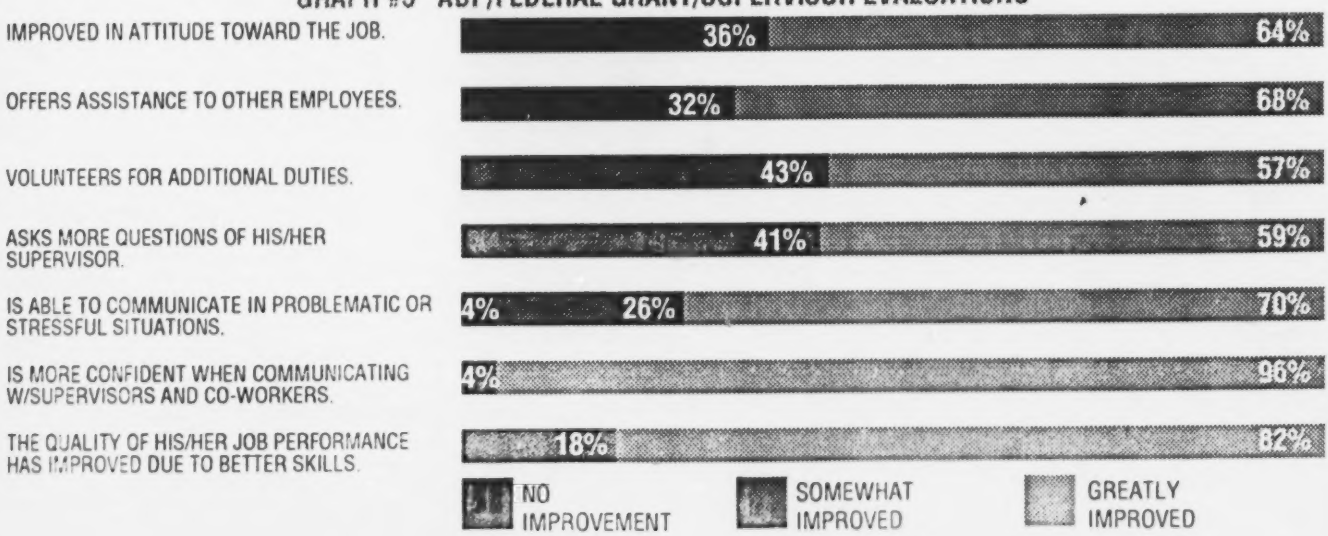
The quality of care and well-being of the residents/patients entrusted to program participants was noticeably improved as a result of the project. Employees can now fill out patient forms correctly, can inform residents and patients of what they are going to do to them, and can report any problems. They have shown more initiative, have become more observant and want to know more about specific illnesses and medications. Above all else they have become more positive in their overall manner and more self-confident. As one participant said, the program made her feel more important. People began to treat her differently because they realized that she could perform.

GRAPH #6 ABE/ESL STUDENT COMPLETION RATES



86.5% of participants completed at least one mod. Their average number of mods completed was 2.7 out of 4.

GRAPH #5 ADP/FEDERAL GRANT/SUPERVISOR EVALUATIONS


IMPROVED IN ATTITUDE TOWARD THE JOB. 36% 64%
OFFERS ASSISTANCE TO OTHER EMPLOYEES. 32% 68%
VOLUNTEERS FOR ADDITIONAL DUTIES. 43% 57%
ASKS MORE QUESTIONS OF HIS/HER SUPERVISOR. 41% 59%
IS ABLE TO COMMUNICATE IN PROBLEMATIC OR STRESSFUL SITUATIONS. 4% 26% 70%
IS MORE CONFIDENT WHEN COMMUNICATING W/SUPERVISORS AND CO-WORKERS. 4% 96%
THE QUALITY OF HIS/HER JOB PERFORMANCE HAS IMPROVED DUE TO BETTER SKILLS. 18% 82%
NO IMPROVEMENT
SOMEWHAT IMPROVED
GREATLY IMPROVED

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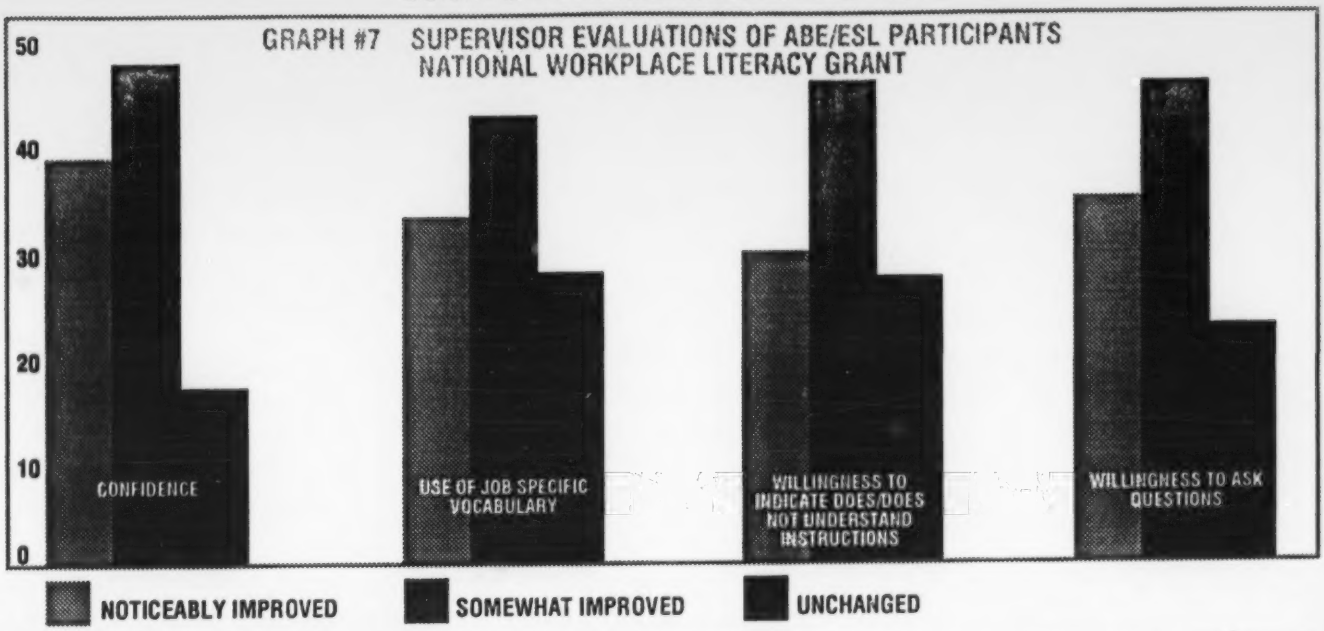
GRAPH #7 SUPERVISOR EVALUATIONS OF ABE/ESL PARTICIPANTS
NATIONAL WORKPLACE LITERACY GRANT



The Continuing Education Institute (CEI) was established in 1977 as a non-profit organization developing innovative education programs for adults who lack basic academic or English language skills. At present, support for its programs is provided by grants from federal and state agencies and by fees from corporations.

Dr. Lloyd David, President/Executive Director
Katherine Archer, Director Adult Basic Education/English as a Second Language Program
Carol Shaye, Director Adult Diploma Program
Barbara Smith, Coordinator English as a Second Language Program

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Responsive Methodology

RESEARCH DESIGN PROGRAM EVALUATION STATISTICAL ANALYSIS

WORKPLACE LITERACY PROJECT

FINAL EVALUATION REPORT

April, 1993

Marcus Lieberman, Ph.D.

58 HUNDREDS ROAD WELLESLEY, MA 02181 (617) 239-1166

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Introduction

This evaluation report is based on data supplied by project staff to the evaluator and represents a close look at the impact the program has had on the students in the ESL/ABE classes. A report on the ADP program is included in the CEI main report.

The major goal of evaluation to assess the degree to which program goals are met. (A secondary goal is to demonstrate that the program took place as designed. Data for attendance is presented in the CEI main report.)

The program goals are divided into two main areas, classroom/ education and job performance. They are listed here:

Education	Job Performance
Reading	Communication In English
Writing	Self-Confidence
Speaking	Willingness To Ask Questions
Oral Comprehension	Job Related Skills
Grammar/Syntax	Positive Attitude Towards Job

The education goals are rated three times, once after each of the modules by the instructors using a checklist describing the amount of change noted. In addition, the students also rate the classes, describing areas where they feel they have grown.

The job performance goals are rated by the participants' immediate supervisors twice during the program also with two check lists, one listing the amount of improvement and the other, rating the frequency of occurence for each behavior.

Tables showing the results of each of these ratings from instructors, supervisors and participants are presented in this evaluation report.

While it would have been valuable to show growth in terms of grade level in the educational goals, many of the ESL/ABE participants were not able to speak English at all and could not take a pretest. There was a great deal of concern that such a test where they would not even understand the directions would cause a high level of anxiety and might result in their not even continuing in the course. (The ADP program did use a standardized mathematics test and the results are presented below.)

Design

In a typical evaluation study, subjects would be assigned to experimental/pilot or comparison/control groups. All subjects would be pre and post-tested on measures that reflect program goals. In the settings where this program was implemented, all the students who wished to sign up for the course were admitted and a high proportion remained to complete the course. Therefore there is no control/comparison group. An attempt was made to find similar nursing assistants and monitor job tenure, promotions, disciplinary actions, problems, etc., but neither subjects nor data were readily available for such a comparison. For ESL/ABE participants, subjects were rated after each module by the instructor and by supervisors twice during the program. ADP students were rated by their supervisors and did complete a mathematics standardized test early and late in the program.

Measures

There were four measures employed in the evaluation. (Additional measures were used to assess the entry level of the participants, but that information is in a section of the main CEI report.) They include for ESL/ABE participants, supervisor ratings, instructor ratings, particpant ratings and for ADP students, a standardized mathematics test.

In our effort to get the maximum amount of reliable data, two forms of the instruments were created and used. One form asked the respondent to rate the amount of change (none, a little, some, a lot) and the other asked for an absolute level of accomplishment, as in the supervisor form which included how often the participant exhibited the desired behavior: never, rarely, sometimes, often, always. The fact that two forms of the measure were used makes it impossible to compare them in a pre and post contrast, but each result is presented in table form here.

In addition to the formal measures described, there was an interview with the supervisors at each of the program sites. This was, in part, to let them tell the program staff what changes they saw in the participants. A second agenda was to get data for a revision of the supervisor rating form.

As of this writing, there is no empirical test of the reliability of the measures apart from the standarized math test. The validity of the items has been assured by including items which correspond to the program goals in both the educational and job performance areas.

Statistics and Data Analysis

For the most part, descriptive statistics, (counts and averages, counts and percentages) are presented in the tables below. It is important to read the introductory paragraph before each set of tables, because in some measures, a high rating is desirable and in others, a low rating is.

ESL/ABE PARTICIPANT OUTCOMES

There are four separate outcomes presented here. The first is a judgment of students' progress on oral and written skills at three points during the year by their instructors. The second is an evaluation by the participants' supervisor and relates to performance on the job. The third set of tables reports the participants' own impressions of their classes. Finally, there is a review of writing samples by the participants.

1. INSTRUCTORS PROGRESS REPORT ON STUDENTS

Numbers of Students
For Whom Teachers Rated Progress

Site	Number
Greenery	20
Sherrill House	18
Boston City Hospital	19
Armenian	7
Goddard House	12
Total	76

For the following tables, instructors rated the students' progress using a three point scale where 1=a lot of progress, 2=a little progress, and 3=no progress. The tables show the average rating for all the students at each site and for the total student population. With very few exceptions, the averages fall between a little progress and a lot of progress.

Vocabulary

Time	1	2	3
Greenery	1.70	1.50	1.30
Sherrill House	1.22	1.13	1.25
Boston City Hospital	1.78	-	1.62
Armenian	1.43	1.86	1.50
Goddard House	1.08	-	1.14
Total	1.48	1.48	1.42

Reading

Time	1	2	3
Greenery	1.60	1.71	1.50
Sherrill House	1.17	1.12	1.25
Boston City Hospital	2.00	1.69	1.48
Armenian	1.14	1.14	1.25
Goddard House	1.00	1.33	1.14
Total	1.42	1.51	1.38

Writing

Time	1	2	3
Greenery	1.75	1.86	1.50
Sherrill House	1.17	1.12	1.25
Boston City Hospital	2.71	1.81	1.71
Armenian	1.71	2.00	1.75
Goddard House	1.00	1.50	1.14
Total	1.66	1.70	1.52

Oral Expression

Time	1	2	3
Greenery	1.50	1.40	1.30
Sherrill House	1.17	1.12	1.25
Boston City Hospital	1.63	1.80	1.63
Armenian	1.43	1.43	1.75
Goddard House	1.00	1.42	1.00
Total	1.37	1.52	1.42

Pronunciation

Time	1	2	3
Greenery	1.60	1.50	1.30
Sherrill House	1.33	1.12	1.25
Boston City Hospital	2.00	-	1.79
Armenian	1.71	2.00	1.50
Goddard House	1.08	-	1.14
Total	1.55	1.51	1.48

Oral Comprehension

Time	1	2	3
Greenery	1.50	1.40	1.30
Sherrill House	1.17	1.12	1.25
Boston City Hospital	1.76	1.78	1.89
Armenian	1.29	1.86	1.75
Goddard House	1.00	1.58	1.00
Total	1.38	1.58	1.52

Syntax/Grammar

Time	1	2	3
Greenery	1.85	1.64	1.60
Sherrill House	1.22	1.12	1.38
Boston City Hospital	1.82	-	1.81
Armenian	1.43	1.71	1.25
Goddard House	1.08	-	1.14
Total	1.53	1.52	1.56

For the following tables, instructors rated students on a second three point scale where 1=excellent, 2=good and 3=needs improvement. For the majority of areas, means fall between 1 and 2, indicating good performance in class.

Attendance

Time	1	2	3
Greenery	-	2.60	2.12
Sherrill House	-	2.25	1.88
Boston City Hospital	-	-	1.72
Armenian	-	2.29	2.00
Goddard House	-	-	1.29
Total	-	2.43	1.78

Class Participation

Time	1	2	3
Greenery	1.40	2.00	1.60
Sherrill House	1.17	1.50	1.25
Boston City Hospital	1.56	2.05	1.43
Armenian	1.14	2.14	2.00
Goddard House	1.00	1.17	1.29
Total	1.29	1.81	1.46

Homework Assignments

Time	1	2	3
Greenery	1.90	2.36	2.00
Sherrill House	1.44	1.86	1.75
Boston City Hospital	1.72	-	1.71
Armenian	2.00	3.00	3.00
Goddard House	1.08	-	1.29
Total	1.63	2.39	1.82

Tutoring Assignments

Time	1	2	3
Greenery	-	2.40	2.00
Sherrill House	-	2.00	-
Boston City Hospital	-	-	-
Armenian	-	-	-
Goddard House	-	-	1.29
Total	-	2.33	1.50

Test Scores

Time	1	2	3
Greenery	-	2.50	2.00
Sherrill House	-	2.33	-
Boston City Hospital	-	-	1.88
Armenian	-	-	-
Goddard House	-	-	1.29
Total	-	2.40	1.72

2. SUPERVISOR EVALUATIONS

SUPERVISOR EVALUATIONS AFTER FIRST MODULE

Number of Evaluations By Superviosr

Greenery	12
Sherrill House	13
Boston City Hospital	2
Armenian	5
Goddard House	5

Willingness To Communicate With Supervisor
Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	31.6	63.2	5.3
Sherrill House	33.3	22.2	44.4
Boston City Hospital	55.6	33.3	11.1
Armenian	50.0	50.0	0.0
Goddard House	100.0	0.0	0.0
Total	45.8	41.7	12.5

Willingness To Communicate With Co-Workers
Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	17.6	47.1	35.3
Sherrill House	28.6	28.6	42.9
Boston City Hospital	28.6	71.4	0.0
Armenian	0.0	0.0	100.0
Goddard House	100.0	0.0	0.0
Total	29.2	35.4	35.4

Willingness To Communicate With Residents
Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	16.7	50.0	33.3
Sherrill House	23.1	30.8	46.2
Boston City Hospital	50.0	50.0	0.0
Armenian	20.0	20.0	60.0
Goddard House	80.0	20.0	0.0
Total	29.7	35.1	35.1

Willingness To Communicate With Co-Workers
Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	16.7	50.0	33.3
Sherrill House	23.1	30.8	46.2
Boston City Hospital	50.0	50.0	0.0
Armenian	20.0	20.0	60.0
Goddard House	80.0	20.0	0.0
Total	29.7	35.1	35.1

Confidence
Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	25.0	75.0	0.0
Sherrill House	31.3	37.5	31.3
Boston City Hospital	40.0	40.0	20.0
Armenian	50.0	33.3	16.7
Goddard House	100.0	0.0	0.0
Total	38.6	47.4	14.0

Use of Job-Specific Vocabulary
Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	31.6	42.1	26.3
Sherrill House	18.8	50.0	31.3
Boston City Hospital	55.6	11.1	33.3
Armenian	33.3	50.0	16.7
Goddard House	60.0	40.0	0.0
Total	34.5	40.0	25.5

Increased Ability To Communicate Effectively On the Phone With Co-Workers

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	17.6	52.9	29.4
Sherrill House	22.2	11.1	66.7
Boston City Hospital	33.3	66.7	0.0
Armenian	100.0	0.0	0.0
Goddard House	-	-	-
Total	24.2	42.4	33.3

Increased Ability To Communicate Effectively On the Phone With Residents

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	20.0	40.0	40.0
Sherrill House	0.0	28.6	71.4
Boston City Hospital	33.3	66.7	0.0
Armenian	-	-	-
Goddard House	-	-	-
Total	16.0	40.0	44.0

Increased Willingness To Show That Instructions Are or Are Not Understood

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	26.3	42.1	31.6
Sherrill House	12.5	56.3	31.3
Boston City Hospital	33.3	66.7	0.0
Armenian	50.0	16.7	33.3
Goddard House	80.0	20.0	0.0
Total	30.9	45.5	23.6

Increased Willingness To Ask Questions

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	20.0	60.0	20.0
Sherrill House	25.0	37.5	37.5
Boston City Hospital	30.0	70.0	0.0
Armenian	66.7	16.7	16.7
Goddard House	80.0	20.0	0.0
Total	33.3	47.4	19.3

Improved Job-Related Reading and Writing Skills

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	15.8	31.6	52.6
Sherrill House	26.7	33.3	40.0
Boston City Hospital	37.5	37.5	25.0
Armenian	40.0	20.0	40.0
Goddard House	0.0	100.0	0.0
Total	23.5	37.3	39.2

Improved Attitude Towards the Job

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	10.5	63.2	26.3
Sherrill House	35.7	21.4	28.6
Boston City Hospital	42.9	28.6	28.6
Armenian	50.0	16.7	33.3
Goddard House	100.0	0.0	0.0
Total	34.0	36.0	30.0

Improved Attitude Towards Co-Workers

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	10.5	52.6	36.8
Sherrill House	33.3	20.0	46.7
Boston City Hospital	100.0	0.0	0.0
Armenian	20.0	20.0	60.0
Goddard House	100.0	0.0	0.0
Total	32.6	25.6	41.9

Improved Attitude Towards Residents

Percentage of Responses

	Noticeably Improved	Somewhat Improved	Unchanged
Greenery	11.8	41.2	47.1
Sherrill House	33.3	20.0	46.7
Boston City Hospital	100.0	0.0	0.0
Armenian	20.0	20.0	60.0
Goddard House	100.0	0.0	0.0
Total	32.6	25.6	41.9

SUPERVISORS' EVALUATIONS AFTER THIRD MODULE

Numbers of Students
Who Who Were Evaluated By Supervisors

Site	Number
Greenery	20
Sherrill House	7
Boston City Hospital	13
Armenian	5
Goddard House	7
Total	52

For the following tables supervisor ratings of student performance are coded on a five point scale where 1=never, 2=rarely, 3=sometimes, 4=often and 5=always. The means range from 3 to 5 with the majority greater than 4 indicating the behavior is displayed often.

Oral Skills

	Greenery	Sherrill House	Boston City Hosp.	Armenian	Goddard House	Total
Follows Directions	4.55	4.17	4.46	4.00	4.43	4.41
Gives Feedback to Directions	3.75	3.71	3.77	3.40	3.67	3.71
Asks Clarifying Questions	3.35	4.00	4.00	4.20	3.50	3.71
Responds to Requests	4.25	4.43	4.33	5.00	3.86	4.31
Indicates Understanding	3.80	4.00	4.23	3.80	4.43	4.02
Report Work Activities	3.85	4.00	4.50	3.50	3.83	4.00
Responds to Facility Goals	3.53	4.67	4.45	3.60	4.40	3.95
Communicates with Supervisor	4.50	4.29	4.36	4.60	4.57	4.46
Communicates with Co-Workers	4.75	4.29	4.18	4.00	4.71	4.48
Communicates with Patients	4.05	4.14	3.50	3.75	3.71	3.91
Communicates with Inspectors	3.71	3.00	3.83	4.00	3.71	3.75
Communicates with Staff	4.70	4.17	3.67	4.67	4.43	4.38

Literacy Skills

	Greenery	Sherrill House	Boston City Hosp.	Armenian	Goddard House	Total
Reads and Follows Work Schedule	5.00	5.00	3.44	4.75	5.00	4.59
Reads Personnel Policies	3.58	5.00	2.70	2.00	4.50	3.33
Understands Labels/Directions	4.00	4.33	3.18	4.33	3.00	3.71
Reads Posted Announcements	3.11	4.00	3.20	3.33	4.40	3.36
Completes Charts and Lists	4.25	4.33	3.71	5.00	-	4.14

For the following tables, supervisors rated students on a three point scale where 1=rarely, 2=often and 3=always. Here, too, the means range from 2 to 3, indicating the behavior is often present.

Personal Skills

	Greenery	Sherrill House	Boston City Hosp.	Armenian	Goddard House	Total
Shows Confidence Performing Job	2.74	2.33	2.58	2.80	2.86	2.67
Comes Prepared For Work	2.90	2.43	2.83	3.00	3.00	2.84
Shows Positive Attitude Toward Job	2.90	2.71	2.75	2.80	3.00	2.84
Shows Positive Attitude Toward Co-Workers	2.80	2.57	2.58	2.80	3.00	2.75
Shows Positive Attitude Toward Sup/Mgrs	2.85	2.57	2.67	2.80	3.00	2.78

In the following table, the means are all close to 1, indicating that the need for a translator is rare.

Supervisor Needs A Translator

Greenery	Sherrill House	Boston City Hosp.	Armenian	Goddard House	Total
1.67	1.00	1.10	1.80	1.00	1.42

The following table shows the supervisor either telling or showing and telling the participant what needs to be done. In no case did a supervisor use purely showing, which would have suggested that oral language would not be helpful.

How Does the Supervisor Communicate What the Employee Is to Do?

	Greenery	Sherrill House	Boston City Hosp.	Armenian	Goddard House	Total
Shows	0.00	0.00	0.00	0.00	0.00	0.00
Tells	0.40	1.00	0.14	0.60	0.43	0.42
Both	0.60	0.00	0.86	0.40	0.57	0.58

SUPERVISOR INTERVIEWS

Summary of Group Interviews With Immediate Supervisors of CEI Students Regarding Changes in On the Job Behaviors As a Result of ESL, ABE and ADP Classes

From August to December, 1992, Drs. Lloyd David and Marcus Lieberman, often accompanied by Ms. Barbara Smith, visited five sites where CEI conducted ESL, ABE or ADP classes. These included four nursing homes (Armenian, Greenery, Sherrill House and Goddard) and one hospital (Boston City Hospital). The purpose of the visit was to elicit from the immediate supervisors of CEI students the changes they had noticed in the students as a result in participating in CEI classes. From these observations we hope to produce a new, more valid version of a supervisor evaluation form which would be completed for each student at least twice while they are enrolled in classes.

There two major areas where the supervisors described changes in the students; competence and confidence.

Since the students came from a variety of areas, including nursing assistants, laundry, dietary, maintainance, record keeping, etc. some of the skills mentioned and listed here are relevant to their area. Other skills involve written and oral communication in English.

Skills and Competencies Mentioned By Immediate Supervisors

Reading

- now can read and obey posted signs, e.g., "Do Not Enter"

Writing

- can write legible synopses of incidents

Task Specific

- o can sort laundry properly (removing the necessity of resorting properly)
- o can fill out forms requiring checking appropriate boxes
- o can do tasks in less time
- o can do more job related work
- o can mix solutions correctly
- o have decreased error and mistake rates
- o can now use the computer for data entry

Oral Comprehension

- o can understand telephone requests
- o spends more time speaking with residents
- o elimated the need for interpreters at meetings
- o will answer pages (removing the necessity of searching for them)
- o can report resident problems
- o can inform residents of what they are going to do for them (dress, bathe, bring to lounge, etc.)
- o responding to patient requests

General Competency

- o now know what is expected of them
- o promoted to supervisory position
- o go beyond filing charts to analyzing them for deficiencies
- o moved from housekeeping to medical records
- o relate classwork to job task

Examples of Increased Self Confidence

Speaking

- o speaking English more often
- o saying "Good Morning" in residents' native language
- o starting to say they don't understand directions
- o talking to people outside their function
- o asking questions when staff speak
- o asking more questions at meetings
- o expressing opinions at meetings

Interest in Gaining Knowledge

- o wanting to know what's happening with residents (illnesses and medications)
- o wanting to continue classes (ADP or LPN)
- o wanting to know what is being said
- o wanting help with class homework
- o feeling good about knowing beginning algebra
- o wanting to continue taking the class in spite of site or shift changes

Interest in Speaking English

- o not going to another staff member who is bilingual (using them as "shields.")
- o becoming more observant, reporting incidents and patient behaviors

Increased Initiative

- o going to nurses if they see a problem
- o showing increased initiative

Sense of Community

- o assisting others in their learning
- o sticking up for the rights of residents
- o supporting union activities

Increased Positive Attitude

- o carrying themselves differently
- o being more positive in their overall manner
- o doing assigned tasks with less resistance
- o behaving more concientiously
- o complaining less in general

3. STUDENT EVALUATION OF CLASS

Numbers of Students
Evaluating Their Class

Site	Number
Greenery	21
Sherrill House	20
Boston City Hospital	26
Armenian	7
Goddard House	13
Total	87

The following three tables show very positive responses by the participants.

Are You Learning In Your English Class?
(percent answering yes)

Time	1	2
Greenery	100.0	100.0
Sherrill House	100.0	100.0
Boston City Hospital	100.0	100.0
Armenian	100.0	100.0
Goddard House	100.0	100.0
Total	100.0	100.0

Is Your English Class Helping You In Your Job?
(percent answering yes)

Time	1	2
Greenery	100.0	100.0
Sherrill House	100.0	100.0
Boston City Hospital	96.0	100.0
Armenian	100.0	100.0
Goddard House	92.3	100.0
Total	97.5	100.0

Do You Have More Confidence Because You Know More English?
(percent answering yes)

Time	1	2
Greenery	89.5	100.0
Sherrill House	81.3	95.0
Boston City Hospital	84.0	96.2
Armenian	100.0	100.0
Goddard House	100.0	100.0
Total	88.8	97.7

In the following four tables, students were to check the area in which they felt they learned the most.

I Learned The Most In Speaking
(percent checking)

Time	1	2
Greenery	78.9	75.0
Sherrill House	68.8	71.4
Boston City Hospital	64.0	100.0
Armenian	100.0	100.0
Goddard House	69.2	100.0
Total	72.5	85.2

I Learned The Most In Writing
(percent checking)

Time	1	2
Greenery	57.9	37.5
Sherrill House	50.0	28.6
Boston City Hospital	56.0	100.0
Armenian	85.7	80.0
Goddard House	61.5	80.0
Total	58.8	55.6

I Learned The Most In Reading
(percent checking)

Time	1	2
Greenery	68.4	50.0
Sherrill House	81.3	28.6
Boston City Hospital	80.0	100.0
Armenian	100.0	80.0
Goddard House	76.9	80.0
Total	78.8	59.3

I Learned The Most In Pronunciation
(percent checking)

Time	1	2
Greenery	78.9	75.0
Sherrill House	100.0	71.4
Boston City Hospital	52.0	100.0
Armenian	85.7	20.0
Goddard House	69.2	40.0
Total	73.8	59.3

This last table shows that with a single exception, all the students enjoyed the classes.

Do You Like The Class?
(percent answering yes)

Time	1	2
Greenery	100.0	100.0
Sherrill House	100.0	100.0
Boston City Hospital	100.0	100.0
Armenian	100.0	100.0
Goddard House	92.3	100.0
Total	98.8	100.0

4.WRITING SAMPLES

Throughout the program, participants are asked to write in a "blue book" so that instructors can note increasing skills and problems to be dealt with.

One set of blue books was given to a local university professor of writing to review. She considered several scoring schemes, such as holistic scoring among others, but was unable to implement any formal scoring system. While she noted increases in writing ability generally, she felt that it would be necessary to define a set stimulus or question for students to respond to at the beginning and the same question near the end of the course, to make any meaningful comparisons.

In the future, she suggested a question such as "Describe a specific day and what you did," or "Describe your favorite resident and tell why that person is your choice," would be asked early in the program and again near the end. Then scores for grammar/syntax as well as narrative/expository could be assigned and analysed for significant growth.